

What is claimed is:

1. A manifold assembly comprising:
 - a collar;
 - a base;
 - a first sample-processing device;
 - a second device stacked below said first sample processing device to form an integral stacked unit preventing relative movement between said first and second devices, said stacked unit positioned between said collar and said base;
 - a first seal between said collar and said base; and
 - a second seal between said first sample processing device and said collar.
2. The manifold assembly of claim 1, wherein said first sample preparation device is a multiwell filtration plate.
3. The manifold assembly of claim 1, wherein the first sample processing device is selected from the group consisting of filter plates, chromatography plates, DNA capture plates, RNA capture plates, plasmid capture plates, flow directors and combinations thereof.
4. The manifold assembly of claim 1, wherein the second sample processing device is selected from the group consisting of filter plates, chromatography plates, DNA capture plates, RNA capture plates, plasmid capture plates, spacers, support plates, flow directors, wicks, MALDI target trays, MALDI targets, collection plates and combinations thereof.
5. The manifold of claim 1, wherein the first device is a multiwell filtration device and the second device is a collection plate.

6. The manifold assembly of claim 1, wherein said first seal is a gasket.
7. The manifold assembly of claim 1, wherein said second seal is a gasket.
8. The manifold assembly of claim 1, wherein said first seal allows for variability in the height of said first and second devices.
9. The manifold assembly of claim 1, wherein said collar has substantially vertical side walls, and wherein said first seal is created with a gasket positioned within said base, said sealing being along the substantially vertical side walls of said collar.
10. The manifold assembly of claim 1, wherein said first and second seal are a unitary seal.
11. The manifold assembly of claim 1, further comprising a vacuum source, and wherein said base comprises a port for communication with said vacuum source.
12. The manifold assembly of claim 1, further comprising a vacuum source, and wherein said collar comprises a port for communication with said vacuum source.
13. The manifold assembly of claim 1, wherein the relative movement of said first and second devices of said integral stack unit is unaffected by the application of vacuum to said manifold.
14. A manifold assembly comprising:
 - a collar;
 - a base in sealing engagement with said collar; and
 - a sample processing device positioned in sealing engagement with said collar.
15. The manifold assembly of claim 14, further comprising a removable support positioned below said sample processing device.
16. The manifold assembly of claim 14, wherein said sample processing device is a multiwell filtration plate.
17. A method of applying vacuum to a manifold assembly, comprising:

providing a vacuum source;

providing a manifold comprising a base , a collar, a first sample processing device and a second device stacked to form a sample processing unit and a port for communication with a vacuum source, said port being formed in a manifold component selected from the group consisting of the base and the collar;

positioning said sample processing unit between said base and said collar;

positioning said collar on said base; and

applying a vacuum to said manifold with said vacuum source, whereby said collar is forced into sealing engagement with said base and said sample processing unit without causing movement of said sample processing unit.

18. The method of claim 17, wherein said first processing device is a filtration plate.
19. The method of claim 17, wherein said sealing engagement between said collar and said base is adaptable to different sample processing unit stack heights.
20. The method of claim 17, wherein functional inserts are positionable in said base.
21. The method of claim 17, wherein said second device is a sample processing device.
22. The method of claim 17, wherein said second device is a removable support.
23. The method of claim 17, wherein said second device is a MALDI target.
24. The method of claim 17, wherein said second device is a collection plate.
25. The method of claim 17, wherein said second device is a collection plate containing more than one well.
26. A method of applying vacuum to a manifold assembly, comprising:

providing a vacuum source;

providing a manifold comprising a base having a port for communication with said vacuum source, a collar, a first sample processing device;

positioning said sample processing device between said base and said collar;
positioning said collar on said base; and

applying a vacuum to said manifold with said vacuum source, whereby said collar is forced into sealing engagement with said base and said first sampling device without causing movement of said sample processing device.

27. The method of claim 26 further comprising a second sample processing device stacked below the first sample processing device.
28. The method of claim 26 further comprising a second sample processing device stacked below the first sample processing device and wherein the second sample processing device is selected from the group consisting of filter plates, chromatography plates, DNA capture plates, RNA capture plates, plasmid capture plates, spacers, support plates, flow directors, wicks, MALDI target trays, MALDI targets, collection plates and combinations thereof.
29. The method of claim 26 wherein the first sample processing plate is selected from the group consisting of filter plates, chromatography plates, DNA capture plates, RNA capture plates, plasmid capture plates, flow directors, and combinations thereof.
30. The method of claim 26 wherein the first sample processing plate is a filter plate and the filter is selected from the group consisting of glass fibers, glass mats, glass cloths, depth filters, nonwovens, woven meshes, microporous and ultrafiltration membranes.
31. The method of claim 26 further comprising a second sample processing device stacked below the first sample processing device, wherein the second sample processing plate is a filter plate and the filter is selected from the group consisting of microporous and ultrafiltration membranes.

32. The manifold assembly of claim 1 wherein the first and second sample processing devices are selected from the group consisting of filter plates, chromatography plates, DNA capture plates, RNA capture plates, plasmid capture plates, spacers, support plates, flow directors, MALDI target trays, MALDI targets, collection plates and combinations thereof.
33. The manifold assembly of claim 13 wherein the sample processing device is selected from the group consisting of filter plates, chromatography plates, DNA capture plates, RNA capture plates, plasmid capture plates, spacers, support plates, flow directors, MALDI target trays, MALDI targets, collection plates and combinations thereof.